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10/596,717	10/10/2006	David Denoon-Stevens	11ES206689	9897

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EXAMINER
CLAWSON, STEPHEN J

ART UNIT	PAPER NUMBER
2416	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *6/22/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claims 1-9 are pending in this application. Claims 2-9 have been amended by

Applicant solely for the purpose of correcting typographical errors and improving

readability. Claims 1-9 have been rejected by Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1, 2, & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Costa et al. (U.S. Pat. No. 5787258) in view of Doviak et al. (U.S. Pub. No.

2003/0017845 A1).

Regarding claim 1, Costa discloses a life safety system comprising a network of

panels, each panel including a central processing module (CPU) and a plurality of local

I/O modules connected to said CPU and to each other. (See Costa, Col. 2 lines 27-34).

Costa further teaches a class A ring network using the physical link layer utilizing RS-

485 ports. (See Costa, Col. 3 lines 39-42).

Costa utilizes two RS-485 ports to connect the network panels into the system.

(See Costa, Fig. 1). Applicant utilizes three RS-485 ports providing a separation of the

network monitor and the host. However, Doviak teaches the interconnection of

networks using routers which operate at the network level and convey messages
between compatible networks. (See Doviak, Para. 10). Specifically mentioned is the
routing of data through networks using a token-ring. (See Doviak, Para. 10). Doviak
shows terminals or personal computers connected to a router which, in turn, is
connected to a communications network. (See Doviak, Fig. 1).

In light of these two references and the lessons learned from them, it would have
been obvious to one of ordinary skill in the art at the time of the claimed invention was
made to separate the network monitor from the host and connect the two devices via a
RS-485 port, thus providing for switching out of damaged or malfunctioning hosts while
not interrupting the integrity of the network.

Regarding claim 2, the combination of Costa and Doviak teaches the network of
claim 1 further including router logic under the control of a microprocessor for controlling
the transmission of data through the monitor. (See Costa, Col. 2 lines 28-45).

Regarding claim 3, the combination discloses a class A ring configuration utilizing
jumpers to designate the master panel and subsequent slave panels to physically map
the network. (See Costa, Col. 11, lines 47-55). Although Costa does not specifically
mention the use of a transceiver, the system must contain a receiver and a transmitter
or a transceiver to work.   Finally, as already mentioned in the claim 1 discussion,
Doviak teaches isolating the host from the router logic. (See Doviak, Para. 10 & Fig. 1).

2.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Costa et

al. (U.S. Pat. No. 5787258) in view of Doviak et al. (U.S. Pub. No. 2003/0017845 A1)

and further in view of Binder (U.S. Pub. No. 2002/0159402 A1).

        Regarding claim 4, Costa teaches a ring network that detects a panel failure.

(Col. 8 lines 30-50). When data cannot be passed beyond the down panel due to

communication problems, the nodes of the network must reconfigure so as to bypass

the downed panel. (Col. 8 lines 30-50). Essentially, the routing logic contained within

the panel is bypassed from the loop. Although Costa does not specifically mention the

use of a transceiver, the system must contain a receiver and a transmitter or a

transceiver to work.   However, Binder discloses the use of a RS-485 transceiver using

termination at each end of a connection. (Para. 57-58).

        In light of these references, claim 4 is rendered obvious to one of ordinary skill in

the art at the time of the claimed invention was made because termination is a well

understood concept in RS-485 technology involving providing electrical resistance and

fail safe biasing at the end of a line to prevent signal reflections.

3.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Costa et

al. (U.S. Pat. No. 5787258) in view of Doviak et al. (U.S. Pub. No. 2003/0017845 A1)

and in further view of Desmarais (Desmarais, Louis. Applied Electro-Optics. Prentice

Hall 12/5/1997) and Curray et al. (U.S. Pub. No. 2003/0084112 A1).

        Regarding claim 5, the combination of references discloses the use of an

optocoupler for electrical isolation between the two internal elements. (See Desmarais,

Pg. 244). Optocouplers are commonly used for high voltage isolation to protect the

receiver circuit from any damaging over-voltage produced from switching or lightning

induced surges. (See Desmarais, Pg. 244). Although Applicant's claimed invention

does not use high voltage, optocouplers are also used to protect against electrostatic

discharges or surges. The combination of references further describes a RS-485

communication interface that utilizes optical isolation to protect against electrostatic

discharges. (See Curray, Para. 55). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the claimed invention was made to utilize an

optocoupler for separation and protection of various parts of the network.

4.   Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Costa et al. (U.S. Pat. No. 5787258) and Doviak et al. (U.S. Pub. No. 2003/0017845

A1).

        Regarding claim 6, Costa discloses a life safety system comprising a network of

panels, each panel including a central processing module (CPU) and a plurality of local

I/O modules connected to said CPU and to each other. (See Costa, Col. 2 lines 27-34).

Costa further teaches a class A ring network using the physical link layer utilizing RS-

485 ports. (See Costa, Col. 3 lines 39-42).

        Costa utilizes two RS-485 ports to connect the network panels into the system.

(See Costa, Fig. 1). Applicant utilizes three RS-485 ports providing a separation of the

network monitor and the host. However, Doviak teaches the interconnection of

networks using routers which operate at the network level and convey messages

between compatible networks. (See Doviak, Para. 10). Specifically mentioned is the
routing of data through networks using a token-ring. (See Doviak, Para. 10). Doviak
shows terminals or personal computers connected to a router which, in turn, is
connected to a communications network. (See Doviak, Fig. 1).

In light of these two references and the lessons learned from them, it would have
been obvious to one of ordinary skill in the art at the time of the claimed invention was
made to separate the network monitor from the host and connect the two devices via a
RS-485 port, thus providing for switching out of damaged or malfunctioning hosts while
not interrupting the integrity of the network.

Regarding claim 7, the combination discloses a class A ring configuration utilizing
jumpers to designate the master panel and subsequent slave panels to physically map
the network. (See Costa, Col. 11, lines 47-55). Although Costa does not specifically
mention the use of a transceiver, the system must contain a receiver and a transmitter
or a transceiver to work.   Finally, as already mentioned in the claim 1 discussion,
Doviak teaches isolating the host from the router logic. (See Doviak, Para. 10 & Fig. 1).

5.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Costa et
al. (U.S. Pat. No. 5787258) in view of Doviak et al. (U.S. Pub. No. 2003/0017845 A1)
and further in view of Binder (U.S. Pub. No. 2002/0159402 A1).

Regarding claim 8, Costa teaches a ring network that detects a panel failure.
(Col. 8 lines 30-50). When data cannot be passed beyond the down panel due to
communication problems, the nodes of the network must reconfigure so as to bypass

the downed panel. (Col. 8 lines 30-50). Essentially, the routing logic contained within

the panel is bypassed from the loop. Although Costa does not specifically mention the

use of a transceiver, the system must contain a receiver and a transmitter or a

transceiver to work.   However, Binder discloses the use of a RS-485 transceiver using

termination at each end of a connection. (Para. 57-58).

In light of these references, claim 8 is rendered obvious to one of ordinary skill in

the art at the time of the claimed invention was made because termination is a well

understood concept in RS-485 technology involving providing electrical resistance and

fail safe biasing at the end of a line to prevent signal reflections.

6.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over as being

unpatentable over Costa et al. (U.S. Pat. No. 5787258) in view of Doviak et al. (U.S.

Pub. No. 2003/0017845 A1) and in further view of Desmarais (Desmarais, Louis.

Applied Electro-Optics. Prentice Hall 12/5/1997) and Curray et al. (U.S. Pub. No.

2003/0084112 A1).

Regarding claim 9, the combination of references discloses the use of an

optocoupler for electrical isolation between the two internal elements. (See Desmarais,

Pg. 244). Optocouplers are commonly used for high voltage isolation to protect the

receiver circuit from any damaging over-voltage produced from switching or lightning

induced surges. (See Desmarais, pg. 244). Although Applicant's claimed invention

does not use high voltage, optocouplers are also used to protect against electrostatic

discharges or surges. The combination of references further describes a RS-485

communication interface that utilizes optical isolation to protect against electrostatic

discharges. (See Curray, Para. 55). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the claimed invention was made to utilize an

optocoupler for separation and protection of various parts of the network.

Response to Arguments

1.	Applicant's arguments filed January 16, 2009 have been fully considered but they

are not persuasive.

Regarding claim 1, Applicant argues that the combination of Costa and Doviak is

only shown through hindsight reconstruction. Further, Applicant argues that there is no

suggestion in Doviak that the local device (12) is the "host" and that the controllers (15)

are the "monitors" recited in claim 1. Applicant also disagrees with Examiner's

motivation that states in part that it would have been obvious to "separate the network

monitor from the host and connect the two devices via an RS-485 port."

Costa does discloses the RS-485 network in which both the host and the

monitors are integrated. **(See Costa col. 2 lines 26-55)** Doviak shows a network

configuration (which includes ring networks) in which computers (or hosts) are

connected to controllers (or monitors) which are connected to the network. **(See
Doviak para. 38, fig. 1)** The computers are the functional equivalent of hosts and the

controllers are the functional equivalent of monitors. Doviak shows a separation of the

controllers (or monitors) and the computers (or host).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Finally, Applicant is reminded that taking elements and making them separable is a matter of obvious engineering choice. **(See MPEP 2144; "V. Making Portable, Integral, Separable, Adjustable, or Continuous" ; "C. Making Separable")** For at least the above reasons, Applicant's arguments regarding claim 1 are not persuasive and, therefore, the rejection is maintained.

Regarding claims 2-3, Applicant argues that because claims 2-3 are dependent upon claim 1, which applicant believes is allowable, claims 2-3 should allowable. However, claim 1's rejection has been maintained. For at least the above reasons, Applicant's arguments regarding claims 2-3 are not persuasive and, therefore, the rejections are maintained.

Regarding claims 4, Applicant argues that because claim 4 is dependent upon claim 1, which applicant believes is allowable, claim 4 should allowable. However,

claim 1's rejection has been maintained. Further, Applicant argues language not

contained in the claim. Examiner will not address such arguments other than to direct

Applicant to the claim 4 rejection listed above. For at least the above reasons,

Applicant's arguments regarding claim 4 are not persuasive and, therefore, the rejection

is maintained.

Regarding claims 5, Applicant argues that because claim 5 is dependent upon

claim 1, which applicant believes is allowable, claim 5 should allowable. However,

claim 1's rejection has been maintained. Further, Applicant argues that the combination

does not use isolators when dealing with networks. However, Curray describes using

an RS-485 communication interface using optical isolation. **(See Curray para. 55)** For

at least the above reasons, Applicant's arguments regarding claim 5 are not persuasive

and, therefore, the rejection is maintained.

Regarding claim 6, Applicant argues that claim 6 is similar to claim 1, but does

not have multiple monitors and is directed at a network loop monitor itself. Examiner

agrees with this assessment. Further, Applicant incorporates the arguments associated

with claim 1. Examiner has already addressed claim 1 above. For at least the above

reasons, Applicant's arguments regarding claim 6 are not persuasive and, therefore, the

rejection is maintained.

Regarding claim 7, Applicant argues that claim 7 is similar to claim 3. Examiner has addressed claim 3 above. For at least the above reasons, Applicant's arguments regarding claim 7 are not persuasive and, therefore, the rejection is maintained.

Regarding claim 8, Applicant argues that claim 8 is similar to claim 4. Examiner has addressed claim 4 above. For at least the above reasons, Applicant's arguments regarding claim 8 are not persuasive and, therefore, the rejection is maintained.

Regarding claim 9, Applicant argues that claim 9 is similar to claim 5. Examiner has addressed claim 5 above. For at least the above reasons, Applicant's arguments regarding claim 9 are not persuasive and, therefore, the rejection is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN CLAWSON whose telephone number is (571)270-7498. The examiner can normally be reached on M-F 7:30-5:00 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN CLAWSON/
Examiner, Art Unit 2416
/Huy D. Vu/
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